

## The status of the Indo-Pacific serranid fish *Variola punctulatus* (Lacepède)

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**Abstract.** — The description and illustration of the serranid fish *Labrus punctulatus* from the Indian Ocean by LACEPÈDE (1801) was based on a drawing by COMMERSON. LACEPÈDE's figure shows a fish with a broad pale posterior border on the lunate caudal fin. VALENCIENNES (1828) redescribed this fish as *Serranus punctulatus* from a dried specimen collected by COMMERSON and color notes from DUSSUMIER's painting of a fish from the Seychelles. *S. punctulatus* has long been regarded as a synonym of *Variola louti* (Forsskål). However, recent examination of the dried specimen and the painting has revealed a species described by BAISSAC (1953) from Mauritius as *Variola albimarginata*; it is best distinguished from *V. louti* by a narrow white posterior border on the caudal fin. The original drawing by COMMERSON from which the engraving of LACEPÈDE's *Labrus punctulatus* was made was subsequently discovered. We designate this drawing as the lectotype of *punctulatus*. Therefore, *punctulatus* remains as a junior synonym of *louti*, and *Variola albimarginata* continues to be a valid species.

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*Labrus punctulatus* was described by LACEPÈDE (1801 : 431, 477, pl. 17, fig. 2), who stated that the engraving of this fish and five others grouped with it were made "d'après des dessins trouvés parmi les manuscrits de Commerson." The type-locality was given as "le grand golfe de l'Inde" (= Indian Ocean). Count LACEPÈDE had to flee from Paris during the French Revolution and work in secret in the country with only manuscript materials (BERTIN, 1945). Because of this, many of his new species were described without specimens at hand.

*Labrus punctulatus* was redescribed as *Serranus punctulatus* by VALENCIENNES in CUVIER and VALENCIENNES (1828 : 367) who called attention to the existence of a specimen collected by COMMERSON, a dried half skin of the right side which is in the Muséum national d'Histoire naturelle in Paris (MNHN A. 5724, 176 mm SL). The color of the species in the fresh state was obtained from DUSSUMIER. GÜNTHER (1859 : 101) placed *Serranus punctulatus* in the synonymy of *Serranus louti* (Forsskål, 1775), described from the Red Sea, and there it has remained until today (though now classified by all authors in the distinctive genus *Variola* Swainson).

A second species of *Variola*, *V. albimarginata*, was described from Mauritius by BAISSAC (1953).

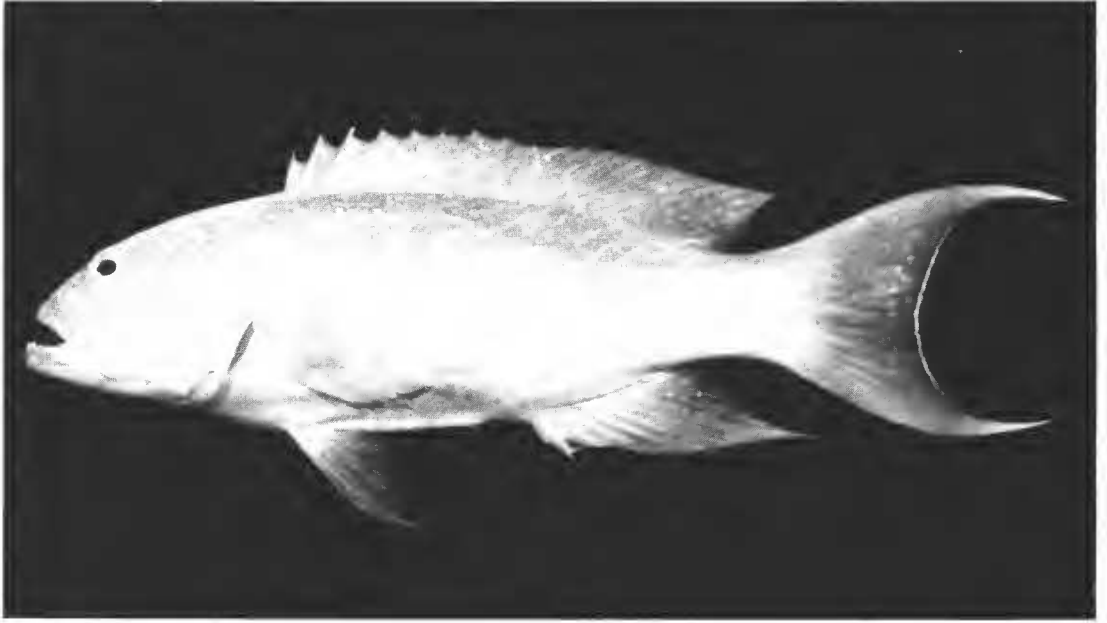


FIG. 1. — *Variola albigarginata*, BPBM 20152, 220 mm SL, Mauritius.

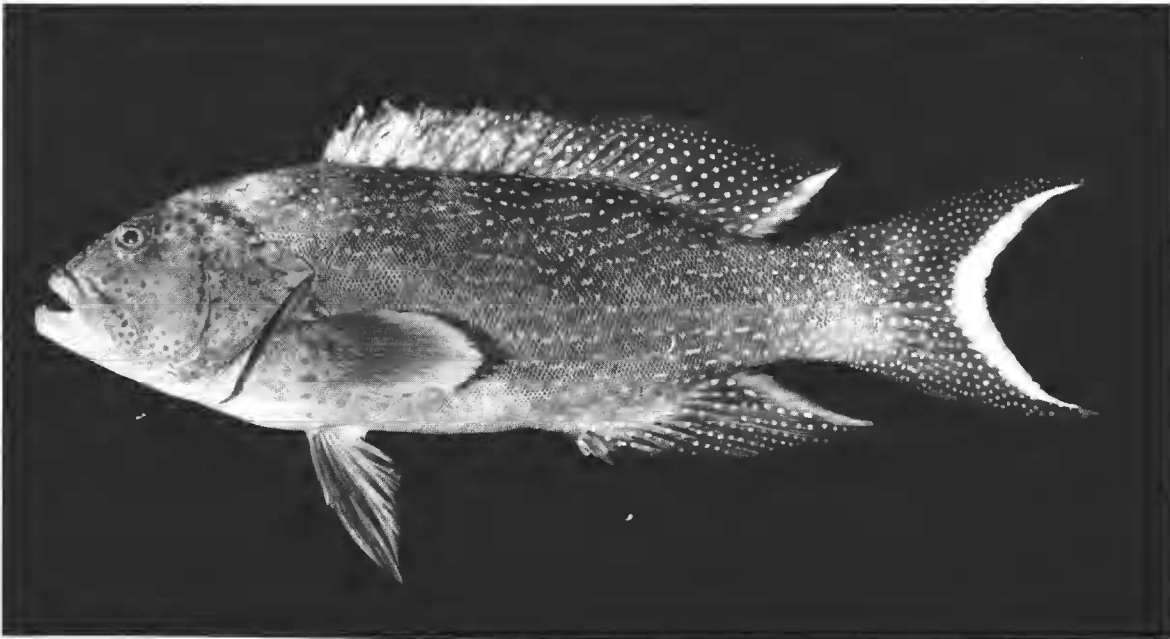


FIG. 2. — *Variola louti*, BPBM 8980, 273 mm SL, Enewetak, Marshall Islands.

SAC (1953, 1956). It was distinguished principally by the narrow white posterior margin of the lunate caudal fin (fig. 1), in contrast to the broad yellow border of *V. louti* (fig. 2).

Recently the authors examined the dried fish considered as a syntype of *Labrus punctulatus* and a watercolor painting of a specimen from the Seychelles made by DUSSUMIER in the original manuscripts of CUVIER and VALENCIENNES (Bibliothèque centrale, MS. 483). To our surprise, both the specimen and the painting clearly show a very narrow pale posterior caudal margin (and the color was specifically noted as white by VALENCIENNES), hence *Labrus punctulatus* and *Variola albimarginata* would seem to be conspecific.

LACEPÈDE's figure and description of *Labrus punctulatus*, however, were based on a COMMERSON drawing, not a specimen. The LACEPÈDE figure has a broad pale posterior margin on the caudal fin typical of *Variola louti*. He made no mention of this color character in his brief description, and nothing in the description distinguishes either species of *Variola*. Therefore his illustration is the diagnostic part of the description.

Upon further searching, we found COMMERSON's original drawing in the collection of Velins (vol. 89, no. 23). It has a broad pale posterior margin on the caudal fin. Direct comparison with LACEPÈDE's plate 17, fig. 2 reveals that this was clearly based on the COMMERSON drawing. The mouth is widely open, the branchiostegal membranes broadly exposed, and other details correspond. We here designate the COMMERSON drawing as the lectotype (iconotype) of *Labrus punctulatus*. In so doing, *Variola punctulatus* becomes a junior synonym of *V. louti* (Forsskål), and *V. albimarginata* Baissac remains as the valid name for the species with the narrow white caudal margin. To our knowledge, the LACEPÈDE name *punctulatus* has not been used, except in the synonymy of *louti*, since VALENCIENNES in CUVIER and VALENCIENNES (1828).

In spite of BAISSAC's adequate description of *Variola albimarginata*, his listing the species in a checklist of Mauritius fishes (1976), and the specific name calling attention to the main distinguishing feature from *louti*, most authors have not recognized this fish. MASUDA *et al.* (1975), KYUSHIN *et al.* (1977), SCHROEDER (1980) and SHEN (1984), for example, have all illustrated *V. albimarginata* in color but misidentified it as *V. louti*. MORGANS (1982), HEEMSTRA and RANDALL in FISCHER and BIANCHI (1984) and HEEMSTRA and RANDALL (MS) have prepared detailed species accounts and illustrations of both *louti* and *albimarginata*.

*Variola albimarginata* is more widespread than was realized. In addition to Mauritius, the Bishop Museum has specimens from Okinawa, Taiwan, and Ambon in the Molucca Islands.

As indicated by BAUCHOT, DESOUTTER and RANDALL (1984), it was our intention to petition the International Commission on Zoological Nomenclature to suppress the name *Labrus punctulatus* Lacepède in favor of *Variola albimarginata* Baissac. However, Richard V. MELVILLE and Mark E. TOLLITT of the Commission have recommended that we dispense with *punctulatus* as we have above.

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